UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/909,843	07/23/2001	Daniel C. Carter	P07087US00/BAS	8801

881 7590 11/04/2002

LARSON & TAYLOR, PLC
1199 NORTH FAIRFAX STREET
SUITE 900
ALEXANDRIA, VA 22314

EXAMINER	
SONG, MATTHEW J	
ART UNIT	PAPER NUMBER
1765	4

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)
	09/909,843	CARTER, DANIEL C.
	Examiner	Art Unit
	Matthew J Song	1765

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Peri d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *11-15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *31 October 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-10 and 16, drawn to an apparatus, classified in class 117, subclass 200.

   II. Claims 11-15, drawn to a method, classified in class 435, subclass 4.

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus as claimed can be practiced by another materially different process, such as one where the tray is glass.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Bill Schulman on 10/25/2002 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-10 and 16. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-15 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5 and 7-10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by McPherson et al (US 5,096,676).

McPherson et al discloses an apparatus for protein crystallization, note entire reference, comprising a stackable tray containing at least one sealable well **20** having a substantially coplanar surface with an upper opening in the sealable well and a flange portion of the side wall, this reads on applicant's side walls extending beyond the lowermost surface of the sealable well, where the side walls having a lower end configuration so as to form an outer base capable of allowing the tray to be stacked on an the outer portion of the upper surface of a second stackable tray positioned below the first tray while maintaining separation between the upper openings of the second stackable tray and the lower surface of the sealable wells of the first stackable tray so as to allow stacking of the trays without a lid to prevent impingement of the upper well openings by the lower surface of the first tray (Figs 1-6 and col 3-6). McPherson et al also discloses a thin plastic material having an adhesive on the lower surface to seal the wells **20,** the tray is made of a plastic and the well **20** is filled with a protein solution (col 4, ln 1-67).

Referring to claims 3-4 and 7, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The apparatus taught by McPherson et al has all of the structural features, as applicant, and would be capable of the intended use claimed by applicant.

7. Claims 1-5 and 7-10 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Turre et al. (US 4,415,418).

Turre et al discloses a stackable tray **1** which is formed of polystyrene containing at least one sealable well in which proteins are analyzed, this reads on applicant's chemical or biological process, and an upper surface substantially coplanar with an upper opening in the sealable well and feet **14** formed on the underside of the tray for stacking trays (Fig 2), this reads on applicant's side walls extending beyond the lowermost surface of the sealable well, where said side walls having a lower end configuration so as to form an outer base capable of allowing the try to be stacked on the outer portion of the upper surface of a second stackable tray positioned below the first tray while maintaining separation between the upper openings of the second stackable tray and the lower surface of the sealable wells of the first stackable tray so as to allow stacking of the trays without a lid to prevent impingement of the upper well openings by the lower surface of the first tray, note entire reference.

Referring to claims 2-5 and 7, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The apparatus taught by Turre et

has all of the structural features, as applicant, and would be capable of the intended use claimed by applicant.

Referring to claim 8, Turre et al teaches polystyrene.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over McPherson et al (US 5,096,676) or Turre et al. (US 4,415,418).

McPherson et al or Turre et al teaches all of the limitations of claim 6, as discussed previously, except the apparatus further comprises an automated system for stacking and unstacking the stackable trays.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify McPherson et al or Turre et al by adding an automated system for stacking and unstacking the stackable trays to reduce manufacturing time and possible contamination. Also automating a manual activity is obvious (MPEP 2144.04).

10. Claims 1-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter (US 5,419,278) in view of Miller (US 5,384,103) or Tabler (US 4,600,103).

Carter discloses an apparatus for using in carrying out a chemical or biological process, note entire reference, comprising a stackable tray **12** containing at least one sealable well **14** in which a protein crystallization is performed, where the tray has an upper surface substantially coplanar with an upper opening in the sealable well (Fig 1). Carter also discloses the tray is constructed of a transparent moldable plastic material or glass and clear plastic tape is used to seal the tray (col 6, ln 1-67). Carter also discloses a hanging drop protein crystallization (col 1, ln 55-67) and a protein solution (col 8, ln 1-67)

Carter does not discloses the side walls extend beyond the lowermost surface of the sealable well, having a lower end configuration so as to from an outer base capable of allowing the tray to be stacked on the outer portion of the upper surface of a second stackable tray positioned below the first tray while maintaining separation between the upper openings of the second tray and the lower surface of the sealable wells of the first tray so as to allow stacking of the trays without a lid.

In an apparatus for stacking trays, note entire reference, Miller teaches feet **82**, **84**, **86**, this reads on applicant's extended sidewalls beyond the lowermost surface of the sealable well, of a tray **12** are contoured to securely engage the sides of a tray placed beneath then at their corners and the feet permit trays to be interlocked when they are stacked, whether covers are used or not (col 2, ln 30-67 and Fig 1). It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Carter with Miller because stacked trays are stacked more securely and are able to withstand below without the contents of the tray becoming dislodged, whether or not a cover is used (col 8, ln 1-35).

Referring to claim 6, the combination of Carter and Miller teaches all of the limitations of claim 6, as discussed previously, except the apparatus further comprises an automated system for stacking and unstacking the stackable trays.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Carter and Miller by adding an automated system for stacking and unstacking the stackable trays to reduce manufacturing time and possible contamination. Also automating a manual activity is obvious (MPEP 2144.04).

Referring to claims 3-4 and 7, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The apparatus taught by the combination of Carter and Miller has all of the structural features, as applicant, and would be capable of the intended use claimed by applicant.

Tabler teaches a stackable tray apparatus comprising a tray stacked in two or more levels adapted to be handled by automated equipment and the tray comprises high side walls which extend below the midplane at the outer edge so that one tray may be stacked on a like tray in a interlocking arrangement (Fig 9-11), this reads on applicant's extended sidewall beyond the lower most surface of the sealable well, note entire reference. It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Carter with Tabler because the interlocking portions of the tray prevent the trays from shifting, thereby increasing the stability of a stacked arrangement.

Referring to claims 3-4 and 7, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. The apparatus taught by the combination of Carter and Tabler has all of the structural features, as applicant, and would be capable of the intended use claimed by applicant.

Referring to claim 6, the combination of Carter and Tabler teaches automated equipment used to handle trays ('103 col 2).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McCorkle, Jr. et al (US 5,906,165) teaches an apparatus for securely stacking trays with an extension of the side **8**.

Breen (US 5,054,629) teaches an adjustable means **2** for stacking trays.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Song whose telephone number is 703-305-4953. The examiner can normally be reached on M-F 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin L Utech can be reached on 703-308-3868. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Matthew J Song
Examiner
Art Unit 1765

MJS
October 30, 2002

BENJAMIN L. UTECH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700